

WW-16J

DEC 21 1998

John Sadzewicz
Acting Deputy Director of Water Programs
Ohio Environmental Protection Agency
1800 Water Mark Drive
Columbus, Ohio 43215-1099

Dear Mr. Sadzewicz:

EPA has conducted a complete review of Ohio's 1998 Section 303(d) list and supporting documentation and information and, based on this review, EPA has determined that Ohio's 1998 list of water quality limited segments (WQLSs) still requiring TMDLs meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA's implementing regulations. Therefore, by this order, EPA hereby APPROVES Ohio's Section 303(d) list. The statutory and regulatory requirements, and EPA's review of Ohio's compliance with each requirement, are described in the attached decision document.

We appreciate your hard work in this area and the submittal of the list as required. If you have any questions please contact Mr. Kevin Pierard, Chief, Watersheds and Nonpoint Source Branch, at 312-886-4448.

Sincerely,

Timothy C. Henry, Acting Director
Water Division

DECISION DOCUMENT FOR THE
APPROVAL OF OHIO'S 1998 § 303(d) LIST

I. Statutory and Regulatory Background

A. Identification of Water Quality-Limited Segments (WQLSs) for Inclusion on Section 303(d) List.

Section 303(d)(1) of the Act directs States to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to U.S. EPA's long-standing interpretation of Section 303(d).

U.S. EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR 130.7(b)(1).

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information. Submittal of Supporting Documentation.

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to U.S. EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, States are required to consider any other data and information that is existing and readily available. U.S. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. See Guidance for Water Quality-Based Decisions: The TMDL Process, U.S. EPA Office of Water, 1991, Appendix C ("U.S. EPA's 1991 Guidance"). While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, U.S. EPA regulations at 40 CFR 130.7(b)(6) require States to submit with their section 303(d) lists supporting documentation, including, at a minimum, the following information:

- (i) a description of the methodology used to develop the list;
- (ii) a description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5);
- (iii) a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in §130.7(b)(5); and
- (iv) any other reasonable information requested by the Regional Administrator.

C. Priority Ranking and Targeting

U.S. EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See Section 303(d)(1)(A). As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and U.S. EPA's 1991 Guidance at 4.

II. Analysis of Ohio's Submission

The Ohio 1998 section 303(d) submittal included the following items:

Clean Water Act Section 303(d) List

Tables 1-6 - Ohio TMDL Priority List for FY 1999-2000

Table 7 - Ohio Department of Health - Waterbody Specific Fish Consumption and Human Contact Advisories

Tables 8-10 - Indices to Watersheds in the Ohio TMDL Priority List

Figures 1-6 - Maps of Watersheds in the Ohio TMDL Priority List Responsiveness Summary

40 C.F.R. § 130.6(b)(6)(i): Description of the Methodology Used to Develop the List

For this assessment, all existing and readily available information on biological and chemical impairment of Ohio's waters was assembled by waterbody segment. Data compiled in development of the 1996 Ohio Water Resource Inventory (CWA Section 305(b) report), was the primary source of information. Ohio used the following methodology in developing its 1998 section 303(d) list:

A waterbody segment was included on the list if it met one or both of the following criteria:

1. The designated aquatic life use of the waterbody segment is impaired or threatened and:
 - a. The impairment assessment was based on onsite chemical and/or biological data; or
 - b. The segment is designated as an Exceptional Warmwater Habitat (EWH), and the impairment assessment was based on either onsite or evaluated chemical and/or biological data.¹
2. The waterbody segment is within a fish consumption or human contact advisory area designated by the Ohio Department of Health (ODH).

In response to U.S. EPA's request pursuant to 40 C.F.R. 130.7(b)(6)(iv), Ohio provided additional information on the use of its biocriteria in evaluating attainment of aquatic life use. See letter from John Sadzewicz, Ohio EPA, to Kevin Pierard, U.S. EPA, June 11, 1998. See also Responsiveness Summary, Sections 5.8 and 5.9. Currently, Ohio EPA employs a weight of evidence approach when both biological and chemical assessment data are available. Where biological and chemical data provide different indications, the biological data is generally favored, as Ohio EPA believes that biological assessments tend to provide a more accurate measure of aquatic life use impairment. As this methodology reflects Ohio's current interpretation of its water quality standard at Ohio Admin. Code 3745-01-07(A)(6)(a), the U.S. EPA believes that it was reasonable for Ohio to list waters based on this interpretation.

¹ The State explained in its Responsiveness Summary that, in the limited case of EWH waters, it had made an exception to its general rule of not relying on data that was more than five years old. Data more than five years old fits the U.S. EPA definition of "evaluated level data." Therefore, some "evaluated" data was used as the basis for the listing of EWH waters. The State felt that this exception was necessary to ensure the protection of these highly sensitive waters, which have been deemed to have significant resource value for the State. See Responsiveness Summary, Section 5.2. U.S. EPA believes that it was reasonable for the State to adopt this more conservative approach in protecting its high quality waters.

Because Ohio has a statewide fish consumption advisory for mercury contamination, all waters of the state meet criteria 2, and, as such, were included in the State's 1998 section 303(d) list as needing TMDLs for mercury. Waterbodies which were included only due to the statewide advisory (that is, no other indications of impairment or threat) were not individually listed but were included on the list as described in the State's narrative description of listed waters in the section titled "Statewide Fish Consumption Advisory for Mercury" on page 9 of Ohio's list. Waterbodies meeting criteria 2 due to a waterbody-specific fish consumption advisory (i.e. the advisory was issued by ODH based on fish tissue samples collected within the waterbody) were individually listed.

Listing of waters covered by a fish consumption advisory is consistent with the provision in 40 C.F.R. § 130.7(b)(3) that designated uses of a water are among the "applicable water quality standards" for which attainment must be assessed as part of the section 303(d) process. In its explanation of the listing of these waters, Ohio stated that, as a result of a statewide fish consumption advisory, all waters of the state are impaired to some degree in regard to the fishable use. The decision to list waters covered by a fish consumption advisory is also consistent with U.S. EPA guidance. *See Guidance for Water Quality-based Decisions: The TMDL Process* (1991), Appendix C, Number 1. *See also National Clarifying Guidance for 1998 State and Territory Section 303(d) Listing Decisions*, pp.2-3 (regarding listing of waters impaired by air deposition.)

Ohio EPA confirmed its understanding that, while wetlands standards are primarily narrative in nature, narrative standards are nonetheless "applicable standards" under 40 C.F.R. 130.7(b)(3) and that wetlands standards will be considered in future 303(d) list development. As Ohio's wetlands standards did not become effective until May 1, 1998, after the submittal of the 1998 303(d) list, they were unavailable for consideration during development of the 1998 section 303(d) list. *See* letter from John Sadzewicz, Ohio EPA, to Kevin Pierard, U.S. EPA, June 11, 1998. Ohio water quality standards have a very general narrative criteria that covers wetlands integrity. There is no existing and readily available data or information showing that this portion of the standard has been violated and therefore the State was not required to list any wetlands.

Consistent with U.S. EPA guidance, the State listed water bodies impaired by an unknown source or unidentified pollutant. Where possible, in situations where the specific pollutant was not known, the State listed the class of pollutants believed to be causing the impairment. *See National Clarifying Guidance for 1998 State and Territory Section 303(d) Listing Decisions*, pp.3-4. *See also* Responsiveness Summary, Section 5.7.

The State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and U.S. EPA guidance. Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. U.S. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. This interpretation has been described in U.S. EPA guidance, most recently in a 1997 memorandum clarifying certain

requirements for 1998 Section 303(d) lists. See U.S. EPA's April 1991 Guidance and the August 27, 1997 U.S. EPA guidance listed below. In addition, this interpretation of Section 303(d) is described in detail in a May 23, 1997, memorandum from Geoffrey Grubbs, Director of the Assessment and Watershed Protection Division, U.S. EPA Office of Water, to the FACA Workgroup on Section 303(d) Listing Criteria. See Memorandum from Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division, to FACA Workgroup on Section 303(d) Listing Criteria, "Nonpoint Sources and Section 303(d) Listing Requirements," May 23, 1997. See also Memorandum from Robert Perciasepe, Assistant Administrator, Office of Water, to Regional Administrators and Regional Water Division Directors, "New Policies for Establishing and Implementing TMDLs," August 8, 1997.

40 C.F.R. § 130.7(b)(6)(ii): Description of the Data and Information Used to Identify Waters. Including a Description of the Data and Information Used by the State as Required by § 130.7(b)(5)

U.S. EPA has reviewed Ohio's description of the data and information it considered in developing the Section 303(d) list. U.S. EPA concludes that the State properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5).

In developing its 1998 section 303(d) list, Ohio relied primarily on data compiled in development of the 1996 Ohio Water Resource Inventory (i.e., the Section 305(b) report.) Agencies involved in the collection of data used in the 305(b) report included the Ohio EPA, the Ohio Department of Natural Resources, the Ohio Department of Transportation and United States Geological Service (USGS). In addition, the Ohio State University Museum of Zoology contributed biological data to the 305(b) report. Impairment data for the Ohio River mainstem was obtained from the Ohio River Valley Sanitation Commission report, Biennial Assessment of Ohio River Water Quality Conditions (for Water Years 1994 and 1995.) This report provided the basis for the Section 305(b) report assessment of the Ohio River mainstem.

In conjunction with the section 305(b) report and its accompanying analyses, Ohio also relied on information developed by several inter-agency groups. The Ohio Nonpoint Source Project Selection Committee, including representatives from Ohio Environmental Protection Agency (OEPA), Ohio Department of Natural Resources (ODNR), Ohio Department of Agriculture (ODA), Ohio Department of Health (ODH), Ohio State University Extension, and United States Department of Agriculture (USDA), and Natural Resource Conservation Service (NRCS), provided information concerning water quality problems attributable to nonpoint sources, by identifying and evaluating section 319 project areas. A work group including OEPA, ODNR, USGS and USDA provided information on priority watersheds for restoration activities, in particular watersheds in need of future nonpoint source projects. Information on areas selected for Remedial Action Plans (RAPs) was provided by the International Joint Commission (an organization of representatives from states and Canadian provinces bordering the Great Lakes)

and local RAP organizations, which are comprised of state and local organizations and representatives of the public. In addition, Ohio relied on fish consumption and human contact advisory areas, as those areas were established by the ODH.

The State also considered data and information relating to water bodies for which water quality problems had been reported by members of the public. Many reports of widespread water quality problems were received in the form of comment letters submitted during the State's public comment period on the section 303(d) list. Commenters were concerned in particular that the Ohio River, Lake Erie and Maumee Bay be included on the list, and these waterbodies were in fact included. Commenters were also concerned that waters impaired by nonpoint sources, and in particular, by atmospheric deposition, be included on the list. As explained above, under the section *Description of Methodology*, Ohio did include such waters on the list.

40 C.F.R. § 130.7(b)(6)(iii): Rationale for Any Decision to Not Use Any Existing and Readily Available Data and Information for Any One of the Categories of Waters as Described in §130.7(b)(5)

In its Responsiveness Summary, Ohio explained its decision not to use data and information from outside sources unless they went through the same data analysis and assessment process as that routinely accomplished by Ohio EPA for agency collected information. Ohio also conditioned the use of such data and information on its ability to gather, screen and apply it via the U.S. EPA Water Body System assessment process. The State supported these conditions by reasoning that they were necessary to maintain consistency and integrity in the 303(d) listing process. See Responsiveness Summary, Section 8.2.

U.S. EPA finds that it is reasonable for Ohio to use data as a basis for listing only if it accurately reflects the biological habitat and chemical quality of the State's surface waters. U.S. EPA also agrees that the State's conclusion that consistency in data quality is critical to a fair and objective listing process is reasonable. U.S. EPA has recognized that states have some flexibility in deciding which data to use as a basis for listing waters, as long as all existing and readily available water quality related data and information is considered in the listing process. See 57 Fed. Reg. 33046 (July 24, 1992).

The screening standards used by the State are contained in publicly available documents, such as Ohio's section 305(b) report and other supporting guidance documents for conducting biological and water quality assessments. Ohio's intensive survey program is based on an extensive and rigorous body of such work in the ecological literature. Once the data have been gathered, the State's use of the data in determining the impairment status of streams and rivers is straight forward - the Ohio biological criteria are the principal arbiters of aquatic life use attainment/non-attainment. Ascertaining the causes and sources associated with the observed impairment requires interpretation of multiple lines of evidence, including water chemistry data,

sediment data, habitat data, effluent data, biomonitoring results, land use data, and response signatures within the biological data itself. The use of this process did not result in the de-listing of waters from the 1996 303(d) approved list.

40 C.F.R. § 130.7(b)(6)(iv): Other Reasonable Information Requested by the Regional Administrator

The State has also demonstrated, to U.S. EPA's satisfaction, good cause for not including Wolf Creek, water body ID Number OH60 36, on its 1998 section 303(d) list. As provided in 40 CFR 130.7(b)(6)(iv), U.S. EPA requested that the State demonstrate good cause for not including in its 1998 section 303(d) list any waterbody segments which had been included in its 1996 section 303(d) list. The State responded that only one waterbody segment in the 1996 section 303(d) list had not been included in the 1998 section 303(d) list. Wolf Creek had been included in the 1996 section 303(d) list solely due to the presence of a waterbody-specific fish consumption advisory. The fish advisory was revised in 1997, and this segment is no longer included in the advisory area. The revision of the fish advisory to remove the advisory from Wolf Creek constitutes good cause for not listing this water, since the basis for listing the water in 1996 no longer exists. See letter from John Sadzewicz, Ohio EPA, to Kevin Pierard, U.S. EPA, April 3, 1998. See also Ohio CWA Section 303(d) List for FY 1999-2000, p.9.

40 C.F.R. § 130.7(b)(4): Identification of Pollutants, Priority Ranking and Targeting

Identification of Pollutants

As required by 40 C.F.R. 130.7(b)(4), Ohio's 1998 section 303(d) list includes identification of the pollutants causing or expected to cause violations of the applicable water quality standards. On pages 14 and 15 of the list, 27 categories of causes and 57 sources of impairment or threat are identified and codified. These codes are then used in Tables 1-6 to identify the causes and sources associated with each individually listed water segment.

Priority Ranking

Scoring of watersheds for five impairment factors, which reflect severity of pollution and designated uses

U.S. EPA also reviewed the State's priority ranking of listed waters for TMDL development, and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters. In part, Ohio took severity of pollution into account by calculating for each selected water body segment the Area of Degradation Value (ADV) for streams and rivers, or the Lake Condition Index (LCI) for inland lakes. Both ADV and LCI are measures of the degree of impairment or threat. Ohio then looked at the watershed scale and determined, for each watershed

containing one or more selected water body segments, the maximum ADV and/or maximum LCI for all rivers, streams and lakes in the watershed. Severity of pollution was also taken into account through Ohio's calculation and comparison of the extent of impairment or threat on a watershed scale, by summing the "impairment weighted miles" within a given watershed. "Impairment weighted miles" were calculated by multiplying the number of impaired miles by the following weighting factors: 1.0 for miles not supporting use, 0.75 for miles partially supporting use and 0.25 for miles threatened. (Lake acres were converted to an estimated length in miles by assuming that each lake was rectangular, with a length equaling twice the width.) See List, pp. 2-4.

The uses to be made of the selected water body segments were taken into account, in part, through the weighting factors described above; the more impacted a use was, the larger the weighting factor used to calculate impairment weighted miles. Ohio also took uses into account by assembling information on fish consumption and human contact advisories. For the limited purpose of prioritization, Ohio further developed a procedure for estimating the overall reduction in consumption of fish from a water body segment resulting from fish advisories. See List, p. 3.

Conversion of scores to points for purposes of prioritizing watersheds

After scoring each watershed for each of the five impairment factors discussed above (maximum ADV, maximum LCI, total impairment weighted miles, maximum fish advisory level, number of human contact advisories,) Ohio developed a system to convert the scores for each of the impairment factors into points, resulting in a single value for each watershed. Finally, watersheds were prioritized according to their point totals, so that watersheds with the highest number of points received the highest priority ranking. See List, pp. 5-6.

Targeting of waters for TMDL development in the next two years

U.S. EPA also reviewed the State's identification of WQLSs targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this time frame.

The largest factor influencing targeting of waters for TMDL development was Ohio's Five Year Basin Plan. Under this plan, all permitted discharges are evaluated every five years, and all permits within a particular basin are scheduled to expire within a single year. Surface water monitoring and analytical activities associated with the NPDES program, such as biological and chemical assessments, are scheduled to provide results prior to that year. This allows Ohio EPA to concentrate its effort in smaller areas and deal with water quality problems on a more holistic (i.e. watershed) basis.

U.S. EPA believes that Ohio's scheduling of TMDL development according to the Five Year Basin Plan is reasonable, both because it ensures the efficient use of Ohio's overall resources available for water quality management, and because it allows for efficient use of the resources specifically devoted to TMDLs. For example, with data collection and analyses already targeted

based on the Basin Plan, more information will be available at the time a TMDL is developed, resulting in a more accurate TMDL. The waste load allocation portion of a TMDL will also be easier to implement if the TMDL is completed prior to expiration of the potentially affected NPDES permits.

In addition to following the Five Year Basin Plan, Ohio also considered all priority information included in the list, including impairment rank, restorability, importance of the watershed (e.g. exceptional warmwater habitats, State Resource Waters), causes and sources of impairment, and ongoing activities such as 319 projects and RAP areas. Additional priority information, such as existing commitments and priorities and site-specific issues, was also considered. U.S. EPA believes these factors were appropriate for consideration because they take into account other significant aspects of Ohio's overall approach to water quality management.

Finally, Ohio considered watersheds with diverse sources and causes of impairment to expand experience in TMDL development, contiguous watersheds to assure inclusion of all significant sources in the TMDL area, and headwater watersheds to assure that the most upstream problems are addressed first. U.S. EPA believes that the first consideration is reasonable because it lays the groundwork for the future growth of Ohio's TMDL program. U.S. EPA believes the second and third considerations are reasonable because they minimize the possibility that a TMDL will need to be recalculated due to changing factors in neighboring or upstream watersheds.

In selecting watersheds for TMDL development in the next two years, Ohio EPA staff considered only watersheds in those years for which permits were scheduled to expire in FY 1999-2000; years 3 and 4 of the Basin Plan. The watersheds targeted for TMDL development within the next two years were included on page 8 of the April 3, 1998 submittal. They are as follows:

Fiscal Years 1999-2000

Watershed	Watershed #	TMDL Parameters²
Mill Creek (tributary to Ohio River)	05090203 030	organic enrichment, ammonia
Rocky River	04110001 070	ammonia, chlorine, nutrients
Upper Little Miami River	05090202 010	nutrients, organic enrichment
Sugar Creek (Tuscarawas River)	05040001 100	sediment, organic enrichment

²As Ohio plans to develop TMDLs on a watershed basis, this list of parameters is not exhaustive. It merely represents some of the major known causes of impairment in the watershed.

Ohio 1998

Review of submitted 303(d) list

REGION 5
1998 TMDL 303(d) SUBMISSION CHECKLIST

TMDL Listing Component	Yes/No	Comments
1) Public participation	Yes	Comments received from 18 Ohio citizens and representatives of municipalities, industry and environmental groups. Comments were summarized and grouped by 12 different subject areas in the Responsiveness Summary.
2) Responsiveness Summary?	Yes	Dated April 10, 1998
3) Identification of Water Quality Limited Segments Requiring TMDLs?	Yes	881 segments individually identified on the 303 (d) list. This represents waters for which there is actual data indicating a problem. Ohio also generically listed all of its waters, due to a state-wide blanket fish consumption advisory (these waters were not identified individually on the list.)
a. Based on an evaluation of all existing and readily available water quality-related data and information?	Yes	The Ohio Water Resource Inventory (CWA Section 305(b) report) and its accompanying analyses are the primary sources of information used in development of the 303(d) list. Biological data is collected by OEPA, ODOT, ODNR Ohio State University Museum of Zoology. Other data collectors included USGS, ORSANCO and dischargers.
b. Describes the methodology used in list development?	Yes	All waterbody segments meeting one or both of the following criteria were selected as requiring TMDL development: 1) The designated aquatic life use of the waterbody segment is impaired or threatened and 2) the waterbody segment is within a fish consumption or human contact advisory area designated by the Ohio Department of Health.
c. Describes the data and information used to identify the listed waters?	Yes	Primary source of data was the 305(b) report (see 3.a., above.) The 305(b) report is based on all existing and readily available data reflecting the biological, habitat, and chemical quality of Ohio's surface waters.
d. Describes the rationale for any decision to not use any existing readily-available water quality-related data and information?	Yes	In its Responsiveness Summary, Ohio explained its decision not to use data and information from outside sources unless they went through the same data analysis and assessment process as that routinely accomplished by Ohio EPA for agency collected information. Ohio also conditioned the use of such data and information on its ability to gather, screen and apply it via the U.S. EPA Water Body System assessment process.
4) Identification of Pollutants Causing or Expected to cause violations of applicable water quality standards	Yes	27 causes and 10 sources (sub divided into 57 subgroups).

Ohio 1998

Review of submitted 303(d) list

5) Describes Priority Ranking?	Yes	Watersheds were scored and then ranked according to their level of impairment. The following factors were included in the calculation of the impairment score for each watershed: maximum Area of Degradation Value, maximum Lake Contaminant Index, maximum fish advisory level, number of segments with human contact advisories and number of Impairment Weighted Miles. The highest impairment score was 16. To convert the score to a priority rank, with the most impaired watershed receiving a priority rank of 1, the impairment score was then subtracted from 17.
6) Identification of water targeted for TMDL development in the next 2 years? (list water bodies under comments)	Yes	List of waters targeted for next two years is included in the Decision Document. Ohio did not submit a long term schedule. This should be submitted 30 days after approval of list.
7) Status of Waters Targeted for TMDL Development from Previous list? (list water bodies under comments)	Yes	1993-94 projects: Black River and Bokes Creek. Bokes Creek completed in 1995. Environmental assessment and preliminary load allocations completed for Black River. Several study activities not completed, due to resource constraints. 1995-96 projects: Lower Mahoning River. Modeling has been done indicating nonpoint sources of metals. Investigations are currently under way to identify these sources. 1997-1998 projects: Cuyahoga River. Currently under development and targeted for completion in 1998.
8) List of deleted water bodies with reason for deletion?	Yes	Wolf Creek (OH60 36) was listed in 1996 due to a water body-specific fish advisory. The advisory was revised in 1997 and the segment is no longer included in the advisory area.

Additional comments:

In its review of Ohio's 1998 Section 303(d) list, U.S. EPA relied upon the following documents:

Clean Water Act of 1987

Federal Register Part II - Environmental Protection Agency, 40 CFR Parts 122, 123 and 130

USEPA Guidance for Water Quality Based Decisions: The TMDL Process, April 1991

Geoffrey H. Grubbs Memorandum Dated August 8, 1992, "Supplemental Guidance on Section 303(d) Implementation"

Geoffrey H. Grubbs Memorandum Dated October 30, 1992, "Approval of 1992 303(d) Lists, Promulgation Schedules/Procedures, Public Participation"

Geoffrey H. Grubbs Memorandum Dated November 26, 1993, "Guidance for 1994 303(d) Lists"

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Robert Perciasepe Memorandum Dated February 26, 1996, "Total Maximum Daily Loads: A Key to Improving Water Quality"

Robert Perciasepe Memorandum Dated August 8, 1997, "New policies for Establishing and Implementing Total Maximum Daily Loads"

Robert Wayland Memorandum Dated August 27, 1997, "National Clarifying Guidance For 1998 State and Territory Section 303(d) Listing Decisions"

September, 1997 guidance from Office of Water, Headquarters, U.S. EPA regarding Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement, EPA-841-B-97-002B

October 15, 1997 agenda and presentation notes from meeting between U.S. EPA and Region V State TMDL Coordinators (Chicago, Illinois.)

December 12, 1997 letter from Jo Lynn Traub to Region V State Water Division Directors regarding 1998 Section 303(d) Lists.

May 27, 1998 letter from Susan Muller, Office of Regional Counsel, U.S. EPA, Region V, to Randy Crowell, Ohio EPA, regarding "Items for Discussion With Respect to the Ohio Submittal of the Clean Water Action Section 303(d) List for 1998."

May 28, 1998 notes on Conference Call attended by Donna Keclik and Susan Muller, U.S. EPA, and Randy Crowell, Ohio EPA, regarding Ohio's 303(d) list.

June 11, 1998 letter from John Sadzewicz, Ohio EPA, to Kevin Pierard, U.S. EPA, Region V, regarding follow up to May 28, 1998 conference call.

Ohio 1998

Review of submitted 303(d) list

U.S. EPA internal review process:

ORC review of Responsiveness Summary, April, 1998.

Water Division meeting with ORC on May 27, 1998

ORC internal meeting on WQS issue July 29, 1998.

Draft approval letter to Headquarters September 17, 1998.

ORC consultation with Headquarters on WQS issue September 23, 1998.

Second draft approval letter to Headquarters September 30, 1998.

Third draft approval letter to Headquarters October 29, 1998.

Headquarters' final comments received by Region December 8, 1998.

Final approval letter in sign-off December 11, 1998.

WW-16J

Mr. John Sadzewicz
Acting Deputy Director of Water Programs
Ohio Environmental Protection Agency
Lazarus Government Center
Columbus, Ohio 43215

Dear Mr. Sadzewicz:

The U.S. EPA has conducted a complete review of Ohio's 1998 Section 303(d) list and supporting documentation and information and, based on this review, U.S. EPA has determined that Ohio's 1998 list of water quality limited segments (WQLSs) still requiring TMDLs meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and U.S. EPA's implementing regulations. Therefore, by this order, U.S. EPA hereby APPROVES Ohio's Section 303(d) list. The statutory and regulatory requirements, and U.S. EPA's review of Ohio's compliance with each requirement, are described in the enclosed decision document.

We appreciate your hard work in this area and the submittal of the list as required. If you have any questions, please contact Mr. Kevin Pierard, Chief, Watersheds and Nonpoint Source Branch, at 312-886-4448.

Sincerely yours,

Timothy C. Henry, Acting Director
Water Division

Enclosure

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12/21/98

WW-16J

Mr. John Sadzewicz

Acting Deputy Director of Water Programs

Ohio Environmental Protection Agency

1800 Water Mark Drive

Columbus, Ohio 43215-1099

LAZARUS GOVERNMENT CENTER

Dear Mr. Sadzewicz:

THE U.S. EPA has conducted a complete review of Ohio's 1998 Section 303(d) list and supporting documentation and information and, based on this review, EPA has determined that Ohio's 1998 list of water quality limited segments (WQLSs) still requiring TMDLs meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA's implementing regulations. Therefore, by this order, EPA hereby APPROVES Ohio's Section 303(d) list. The statutory and regulatory requirements, and EPA's review of Ohio's compliance with each requirement, are described in the attached decision document.

ENCLOSED

We appreciate your hard work in this area and the submittal of the list as required. If you have any questions, please contact Mr. Kevin Pierard, Chief, Watersheds and Nonpoint Source Branch, at 312-886-4448.

Sincerely,

yours

Timothy C. Henry, Director
Water Division

ENCLOSURE

OW
12/21/98

bcc: w/ attachments
12/14/98
MCS 12/14/98

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